

41260S2

AUTOMATIC ABSTRACTION OF SOFTWARE SOURCE CODE

**ABSTRACT**

A method for verifying software source code that includes references to program variables includes processing the source code to derive a set of next-state functions representing control flow of the source code. The references to the program variables in the source code are replaced with non-deterministic choices in the next-state functions. The next-state functions including the non-deterministic choices are restricted to produce a finite-state model of the control flow. The finite-state model is then verified to find an error in the source code.

10045007-011502  
205110-20054001